IN THE CLAIMS:

All pending claims are set forth below. Cancelled and withdrawn claims are indicated with claim number and status only. The claims as listed below show added text with <u>underlining</u> and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (previously amended), (cancelled), (withdrawn), (new), (previously added), (reinstated - formerly claim #), (previously reinstated), (re-presented - formerly dependent claim #), or (previously re-presented). Please AMEND claims, in accordance with the following:

1.   (CURRENTLY AMENDED) A plasma apparatus, which represents the luminance of one frame in accordance with a combination of sub-frames having predetermined luminance levels, comprising:

a data converter to convert input video data into output data <u>of each pixel</u> into output data in which the ON/OFF states of the sub-frames are specified;

wherein <u>a number of bits for a gray scale of the output data is greater than a number of bits for a gray scale of the input video data, and</u> the sub-frames include a smaller luminance sub-frame having a luminance level which is lower than the minimum gray scale level of luminance which can be represented by the number of bits ~~in~~ <u>of</u> the input video data.

2.   (PREVIOUSLY AMENDED) A plasma display apparatus according to claim 1, wherein said data converter has a plurality of conversion characteristics, and a desired conversion characteristic is selected in accordance with a mode set signal to select said plurality of conversion characteristics.

3.   (ORIGINAL) A plasma display apparatus according to claim 1, wherein said input video data are supplied in accordance with a plurality of primary colors, and said conversion characteristics of said data converter are selectively determined for each of said primary colors.

4.   (CURRENTLY AMENDED) A plasma display apparatus according to claim 1, wherein~~,~~ said data converter has a conversion ~~characteristics~~ <u>characteristic</u> in which an increase rate of the luminance of said output data, in a first gray scale area for said input video data, differs from an increase rate of said luminance of said output data, in a second gray scale area, whose luminance is higher than said first gray scale area.

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5.   (CURRENTLY AMENDED) A data converter used with a plasma display apparatus which represents the luminance of one frame in accordance with a combination of sub-frames having predetermined luminance levels, wherein video input data ~~are~~ of each pixel is converted into output data in which the ON/OFF states of the plurality of sub-frames are specified, and wherein a number of bits for a gray scale of the output data is greater than a number of bits for a gray scale of the input video data, and the sub-frames include a smaller luminance sub-frame which has a luminance level lower than the minimum gray scale level of luminance which can be represented by the number of bits in the input video data.

6.   (CURRENTLY AMENDED) A data converter according to claim 5, wherein a conversion characteristic of the data converter is that an increase rate of the luminance of the output data, in a first gray scale area for the video input data, is lower (or higher) than an increase rate of the luminance of the output data, in a second gray scale area, whose ~~is higher~~ luminance is higher than that in the first gray scale area.

7.   (CURRENTLY AMENDED) ~~Driving~~ A driving method for a plasma display apparatus which represents the luminance of one frame in accordance with a combination of sub-frames having predetermined luminance levels, comprising:
    converting video input data of each pixel into output data in which the ON/OFF states of the plurality of sub-frames are specified;
    wherein a number of bits for a gray scale of the output data is greater than a number of bits for a gray scale of the input video data, and the sub-frames include a smaller luminance sub-frame which has a luminance level lower than the minimum gray scale level of luminance which can be represented by the number of bits in the input video data.